

Notes

A Significant New Hostplant record for *Pieris virginiensis* (Pieridae)

Since Klot's (1935, J. New York Entomol. Soc. 53:139-142) original description of the larva of *Pieris virginiensis*, this butterfly has been presumed to be monophagous, feeding exclusively on *Dentaria*. More recently, Shapiro (1971, Entomol. News 82:13-15) noted that the biology of this butterfly seemed completely tied to the phenology of its ephemeral hostplant. He found that in the laboratory, *P. virginiensis* females will oviposit on, and larvae will develop on several species of mustards. But that under natural conditions, *Dentaria* is the only host, probably because it is the only mustard which is usually present in this butterfly's habitat.

Chew (1980, Oecologia 46: 347-353) reiterated this position noting that populations with which she was familiar had only two species of mustards to choose between, *D. diphylla* Michx. and *D. laciniata* Muhl. . Likewise, the population studied in depth by Cappuccino and Kareiva (1985, Ecology 66:152-161) could choose between only these two hostplants. These authors quantitatively assessed and reaffirmed the close relationship between *P. virginiensis*'s biology and the phenology of *Dentaria*.

In central Ohio, *P. virginiensis* occurs in isolated populations inhabiting wooded creek bottoms, usually with shale banks. In Morrow County, Ohio, we observed females ovipositing at a site where *Dentaria* is abundant in a creek bottom, but another mustard, *Arabis laevigata* (Muhl.) Poir, occurs as widely scattered plants on surrounding shale banks. From a distance, we noted *P. virginiensis* females settling on the *Arabis*, but we were unable to observe actual oviposition. However, upon examination, we found that these plants held several *Pieris* ova, presumably deposited by one or more of the females we observed. Later, by searching *Dentaria* we located two additional ova. Since all of these ova could have been deposited by *P. rapae*, which is also common in this area, we reared them on their original oviposition substrates. From these rearings we obtained two *P. virginiensis* pupae reared on *Dentaria* and one reared on *Arabis*.

These observations confirm the suggestion by Shapiro and Chew that *P. virginiensis* is usually monophagous not because female oviposit only on *Dentaria*, but because *Dentaria* is usually the only mustard available in their restricted habitat for them to oviposit on. Our preliminary observations indicate that *Arabis* may be more attractive to ovipositing females than *Dentaria*. Several *Arabis* plants located by us had several ova attached (one plant had six) while many *Dentaria* plants had to be searched to locate our two ova. However, *Arabis* is rare relative to *Dentaria* at this site, and we assume that *Dentaria* is the primary ovipositional substrate.

Arabis may be more attractive to ovipositing females, and because it is not as ephemeral as *Dentaria* it might allow more time for completion of larval development. However, its rarity in this habitat, and sometimes high egg load (indicating possible defoliation with no nearby mustards on which the larvae could relocate) limit the possibility that *P. virginiensis* could adopt a biological strategy that would allow it to become less dependent on *Dentaria*.

Acknowledgments. We thank Dr. A. Shapiro, University of California, Davis, for his help in preparing this note.

John A. Shuey, 731 Kerr Street, Columbus, Ohio 43215, John W. Peacock, 185 Benzler Lust Road, Marion Ohio 43302

Description of the Hitherto Unknown Female of *Acerbas suttoni* Russell (Hesperiidae)

The hitherto unknown female of *Acerbas suttoni* Russell is described as follows. The conspecificity of *A. latefascia* and *A. suttoni* are discussed below. *Acerbas suttoni* Russell, 1984, Ent. Ber., 44:154-156; Figs 4a, b, 5, 6.

Female (Fig. 1): Forewing 20 mm. Head, palpi, ventral thorax, costa of legs, bases of forewing and ventral hindwing with green reflection. Antenna black, long, $3/5$ length of costa. Abdomen dark brown; segments with faint white hairs on posterior margin. Dorsal forewing: dark brown, detached hyaline spots in spaces 2 and 3, small upper cell spot, no apical and lower cell spots. Dorsal hindwing: white median band from dorsum to vein 6, obscured in space 1b. Cilia brown, becoming paler toward tornus. Ventral forewing: similar to dorsal side, but dorsum paler. Ventral hindwing: blackish brown, median band conspicuous and sharply defined; break in space 1b; trace of band reach to costa.

Material examined: Lambarese, 100 km N. of Palopo, Sulawesi, Indonesia. 28. VI. 1966 (Bernice P. Bishop Museum, Honolulu).

Three species of *Acerbas* have been described from Sulawesi, of which only *A. azona* Hewitson, 1866 has been known for a long time. De Jong (1982, Ent. Ber., 42:88-90) described *A. latefascia* from one female specimen from N. E. Sulawesi. He suggested that *A. latefascia* could be considered a subspecies of *A. duris* Mabille, 1883, though he mentioned that the examination of the male would be necessary to establish the exact relationship of these two taxa. Two years later, Russell (1984, Ent. Ber., 44:154-156) described *A. suttoni* from one male from Central Sulawesi. He mentioned that *A. suttoni* was the nearest to *A. duris dorka* Evans, 1949 from Borneo in appearance. However, he did not suggest the relationship between *A. latefascia* and *A. suttoni*. I suggested (in litt.) the conspecificity of *A. latefascia* and *A. suttoni* to both of the authors before I found

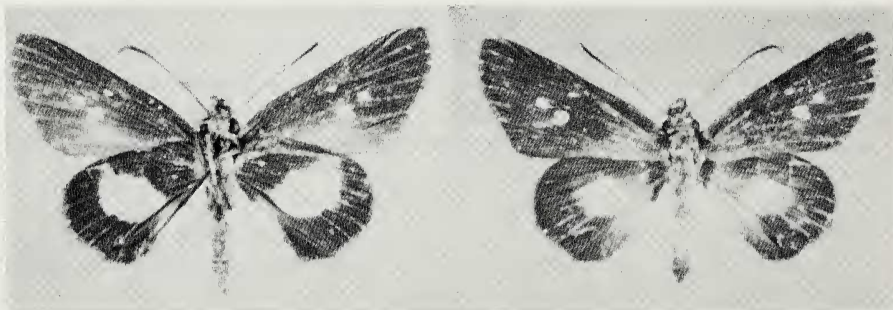


Fig. 1 Female of *Acerbas suttoni*: dorsal and ventral view.